

**AMENDMENTS TO THE CLAIMS**

Please amend claims 3, 4, 6 and 7 and add new claims 8 and 9 as follows:

1. (original) A method for fabricating a capacitor, comprising the steps of:

- a) forming a lower electrode on a semiconductor substrate;
- b) forming a dielectric layer on the lower electrode;
- c) loading the semiconductor substrate containing the dielectric layer into a

deposition chamber;

d) nitriding a surface of the dielectric layer while  $\text{NH}_3$  gas is flowed into the deposition chamber; and

e) forming an upper layer by using a source gas  $\text{NH}_3$ , containing Titanium (Ti) on the nitrated surface of the dielectric layer through an atomic layer deposition (ALD) method.

2. (original) The method as recited in claim 1, wherein the step d) is performed on condition that the source gas  $\text{NH}_3$  is flowed in at a flow rate of about 300 sccm to about 1000 sccm for about 10 seconds to about 120 seconds.

3. (currently amended) A method for forming a capacitor ~~capable of preventing  $\text{TiCl}_4$  gas from being exposed to a dielectric layer by controlling at least one of a  $\text{TiCl}_4$  flow rate and a  $\text{TiCl}_4$  feeding time while continuing a series of cycles for performing an atomic layer deposition (ALD) process, the method~~ comprising the steps of:

a1) loading a semiconductor substrate containing a dielectric layer formed on a lower electrode into a deposition chamber; and

b1) forming an upper electrode containing Titanium (Ti) on the dielectric layer through an atomic layer deposition (ALD) method using a first source gas including  $\text{TiCl}_4$  and a second source gas  $\text{NH}_3$ , wherein at least one of a  $\text{TiCl}_4$  flow rate or a  $\text{TiCl}_4$  feeding time is controlled to limit the exposure of the dielectric layer to  $\text{TiCl}_4$  gas until at least an ALD-  
 $\text{TiN}$  monolayer has been formed on the dielectric layer.

4. (currently amended) The method as recited in claim 3, wherein the  $\text{TiCl}_4$  flow rate is controlled by opening a valve for a  $\text{TiCl}_4$  feeding process or by-passing  $\text{TiCl}_4$  gas

outside of the deposition chamber after opening the valve prior to starting the ~~TiCl<sub>4</sub>~~ TiCl<sub>4</sub> feeding process.

5. (original) The method of claim 4, wherein the TiCl<sub>4</sub> gas is flowed in at a flow rate of about 10 sccm to about 50 sccm.

6. (currently amended) The method as recited in claim 3, wherein the ~~TiCl<sub>4</sub>~~ TiCl<sub>4</sub> feeding time is mandated to be timed, wherein initial 50 cycles lapse for about 0.05 seconds to about 0.2 seconds and the rest lapses for about 0.5 seconds to about 0.2 seconds.

7. (currently amended) The method as recited in claim 3, wherein step b1) further includes the steps of:

a2) ~~absorbing the TiCl<sub>4</sub> onto the dielectric layer by feeding the TiCl<sub>4</sub>;~~

b2) feeding the TiCl<sub>4</sub> gas in order to ~~make it absorbed~~ adsorb the TiCl<sub>4</sub> on  
onto the dielectric layer;

c2) purging a ~~remnant~~ remnants of the TiCl<sub>4</sub> gas remaining after the  
absorption adsorption;

d2) feeding NH<sub>3</sub> gas ~~on~~ onto a surface of the dielectric layer on which the  
TiCl<sub>4</sub> is already ~~absorbed~~ adsorbed; and

e2) purging a remnant of the NH<sub>3</sub> gas and a by-product which is formed by a  
chemical reaction between the NH<sub>3</sub> and the TiCl<sub>4</sub>.

8. (new) The method as recited in claim 1, wherein the upper layer includes a  
TiN layer formed by the ALD method using TiCl<sub>4</sub> gas as a precursor.

9. (new) The method as recited in claim 3, wherein the upper layer includes a  
TiN layer formed by the ALD method using TiCl<sub>4</sub> gas as a precursor.